



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/772,259 12/23/96 MASAKI

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021171
STAAS & HALSEY LLP
700 11TH STREET, NW
SUITE 500
WASHINGTON DC 20001

MMC2/1017

EXAMINER

NGUYEN, T

ART UNIT

PAPER NUMBER

2872

32

DATE MAILED:

10/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/772,259

Applicant(s)

MASAKI ET AL.

Examiner

Thong Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 10/03/2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/772,259 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art described at pages 1-5 and illustrated in figures 11-12 in view of Ishikawa et al (Patent No. 5,600,455, of record).

The optical device as provided by the prior art which is described in the present specification at pages 1-5 and illustrated in figs. 11-12 comprises 1) a light source apparatus having a lamp (7) and a reflector (8); 2) a light guide plate (2) having a light entrance surface for receiving light from the light source apparatus, an inclined bottom surface decreasing away from the light entrance surface, and an exit surface opposite and spaced from the inclined bottom surface; 3) a reflecting plate (4) disposed adjacent to the inclined bottom surface of the light guide plate (2); and 4) a light control plate (5) having an emitting surface and an entrance surface having a prismatic configuration which entrance surface faces the exit surface of the light guide plate (2). It is also noted that the light control plate (5) comprises the following features: First, the prismatic configuration comprises a plurality of triangular-shaped projections which are extended

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in one common direction and repeatedly arranged in a direction perpendicular to the mentioned common direction; and second, the emitting surface of the light control plate is spaced from the entrance surface of the light control plate as can be seen in figures 11-12.

As a result of such a structure, the optical device of the prior art meets almost the structure of the device as claimed in the present application. However, the optical device of the prior art does not disclose that only part of the slopes of each prism of the prismatic configuration of the light control plate defines a diffusing surface for the purpose of generating diffused light in a substantially uniform manner and simultaneously reducing the effects of the reflecting plate.

The use of a light control plate having a prismatic configuration wherein only part of the slopes of each prism constituting the prismatic configuration is made as a roughed surface which defines a diffusing surface is disclosed in the art as can be seen in the light control device disclosed by Ishikawa et al. In particular, Ishikawa et al disclose a light control plate and teach the use of a light diffusing profile on a prismatic surface. The roughened pattern formed on one slope of each triangular-shaped projection as provided by Ishikawa et al will diffuse the light passing through the projection. See column 3 and figure 7. It is also noted that the formation of only one part of the slopes of each prism as suggested by Ishikawa et al is for the purpose of providing a uniform pattern of light while reducing the effects of stripe pattern of the prior art disclosed in their patent. As clearly disclosed at columns 1-2 and shown in figures 1-5 of the Patent issued to Ishikawa et al, the optical device of the prior art comprises a

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light guide plate (6) and a light control plate (1) having a prismatic configuration. The slopes of each prism of the prismatic configuration are not roughed surfaces. As a result of such structure, the conventional device in the Ishikawa et al Patent does not provide a uniform pattern when the view of an observer is angled with respect to the optical device. The formation of coarse surface on at least one part of the slope of each prism as suggested by Ishikawa et al will overcome the disadvantages of the prior art while providing a uniform pattern of illumination. See Ishikawa et al, column 3.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the optical device having a means in the form of a prismatic configuration formed on the entrance surface of a light control plate as provided by the prior art by making only part or one side of each prism of the prismatic configuration as a roughed surface as suggested by Ishikawa et al for the purpose of controlling diffusing light with substantially uniform manner while reducing the effects of the stripe phenomenon. It is also noted that while Ishikawa et al do not clearly state that the formation of roughed surfaces in the prismatic configuration of the light control plate will reduce the effects of the reflecting member; however, such use of roughed surface on only one slope of each prism of the prismatic configuration as suggested by Ishikawa et al is inherently given the same result because the combined product provided by the prior art and Ishikawa et al has the same structure as that of the device claimed.

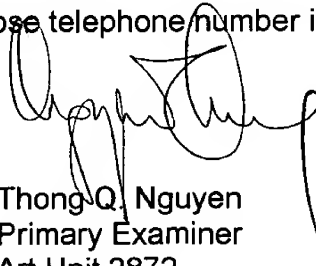
Conclusion

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exam. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703 308 1687. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7724 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
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October 12, 2001